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MEMORANDUM

August 29, 1960

DEPARTMENT OF STATE A/CDC/MR
REVIEWED BY AS DATE 14 MAY 1982
RDS☐or XDS☐EXT. DATE
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845J.2614/8-2960 CS/RA

TO: The Acting Secretary

THROUGH: S/S

FROM: E - Mr. Martin

SUBJECT: Volta River Project

As you know, in discussions which have recently been had with respect to the Volta River Project, it has been decided that the United States should offer to make financing in the amount of $30,000,000 available from United States sources. This was considered essential in the United States interest in order to continue to make possible the development of the proposed hydroelectric project as well as the related aluminum facilities by the free world, the probable alternative if this should not be possible being their development with Bloc assistance. It is desirable that the general financing arrangements for the hydroelectric facilities be known before finalizing arrangements for the aluminum facilities, which depend on the cost of power and, therefore, on the financing cost of the power facilities. An engineering report on the hydroelectric facilities has been prepared by the Kaiser engineers.

The proposed DLF contribution to the $30,000,000 United States assistance has been thoroughly discussed with members of its Board of Directors, including Mr. Brand, and we propose at the next meeting of the DLF Board, which is scheduled for August 29, to reflect in the Minutes the decisions which have been reached. There is attached (Tab A) the paper being submitted to the DLF Board of Directors on the project, the conditions to the proposed financing offer being stated on pages 4 and 5.

We now propose to advise the GOG of the portion of the $30,000,000 the United States loan assistance to be made available by a loan from the DLF, subject to the conditions referred to above. It is therefore

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desirable that at this time, in accordance with the provisions of section 202(c) of the Mutual Security Act and pursuant to the authority which has been delegated to you (see Tab B), you confirm that you have determined it is in the national interest for DLF to use the funds to be committed by it for the Volta River hydroelectric project pursuant to multilateral plans being developed for the financing of that project, subject to the conditions referred to above.

Recommendation:

That you confirm that you have made the determination referred to above.

Approve _____

Disapprove _____

Concurrences:

AF - Mr. Padberg (in draft)

L/MS - Mr. Rehm (in draft)

DLF - Mr. Perry (in draft)

Attachments:

TAB A - DLF paper

TAB B - Statute

L:RKrones:mkg:8/29/60

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DEVELOPMENT LOAN FUND
WASHINGTON 25, D. C.

OFFICIAL USE ONLY

DLF-LC/P-253
August 26, 1960

MEMORANDUM FOR THE BOARD OF DIRECTORS

SUBJECT: Ghana - Volta River Hydroelectric Project

Attached for your consideration are the recommendations of the Managing Director for approval of an allocation of DLF funds in an amount not to exceed $20,000,000 to the Government of Ghana to assist in financing the costs of the Volta River Hydroelectric project in conjunction with the IBRD and the Export-Import Bank of Washington.

This proposal is scheduled for consideration by the Board at its meeting on August 29, 1960.

Joseph S. Toner
Secretary-Treasurer

Attachment
As Stated

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The attached paper is being revised to reflect that (i) the DLF loan will be used for U.S. and local currency costs with the understanding that dollars payed to GOG for local currency will be put in a separate account and used for U.S. purhcases, (ii) the second condition on p. 5 will be revised to require satisfactory assurances as to all other financing of Stage 1 and (iii) the fourth condition on p. 5 will be revised to relate to the disbursement of funds under all project loans.

The revised pages will be substituted as soon as available.

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DEVELOPMENT LOAN FUND
WASHINGTON 25, D. C.

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DLF-LC/P-253
August 25, 1960

MEMORANDUM TO THE BOARD OF DIRECTORS

SUBJECT: Volta River Hydroelectric Project - Ghana

THE PROJECT:

The construction of hydroelectric facilities on the Volta River to supply power for smelting of aluminum and for other industrial and private purposes, is the principal project for the industrial expansion of Ghana. The project involves the construction of a dam at Akosombo, on the Volta River and a 589,000 kw hydroelectric power plant (with provision for 294,000 kw additional capacity) and transmission lines to Accra and Tema to supply power. The principal purpose of the project will be to provide power to the proposed aluminum smelter and to the Accra - Tema area. The approximate proposed location of the dam is indicated on the attached map.

The dam would be 370 feet high above foundation level and 2,100 feet long, creating a reservoir 300 miles in length, with a total storage capacity of 120 million acre-feet. Based on average rainfall, adequate water would be available to operate the initial four unit (589,000 kw) plant. The power market would consist of the 120,000 ton aluminum smelter requiring 303,000 kw and other consumers (Accra - Tema area) requiring 59,000 kw in 1967 and 163,000 kw by 1976. At the present time, Ghana has a total installed capacity of approximately 84,000 kw, of which 53,000 kw is installed in mining developments and 31,000 kw is available for general utility service. The largest utility system is in Accra, which has 13,000 kw at the present.

Subsidiary to the aluminum development, the project offers possibilities of irrigation, and with the formation of a huge lake, fisheries and inland water transportation.

Total cost of the project is estimated at $163.2 million, of which foreign exchange costs would amount to about $112 million. An additional $150 million would be required for construction of the proposed aluminum smelter by a private group of companies.

The project, which would take about 4 years to construct, is scheduled to be completed by December 1965. Consulting engineers would design and supervise construction of the project.

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According to the Kaiser Reassessment Report (see Background below) further stages of the overall Volta River project are planned as follows: Stages 2 and 3 would be carried out during the 1965-1970 period at an additional cost of $184.5 million. Stage 2 contemplates the addition of two 128,000 kw units at Akosombo. Also, the Kpong hydroelectric development will be constructed a short distance below Kosombo with a capacity of 140,000 kw. These power additions will represent an investment of $69.2 million and raise the system capacity to more than 1,100,000 kw. Stage 3 represents an additional 100,000 tons per year increase in the capacity of the aluminum smelter at a cost of $115.3 million, raising the smelter capacity to 220,000 tons per year.

Stage 4 consists of construction of a 190,000 kw hydroelectric development a considerable distance above Kosombo and the construction of additional transmission lines at an estimated cost of $75.9 million. This stage would be carried out after 1970 and phased with the load growth.

BACKGROUND:

Design work for the dam and hydroelectric facilities is being performed by Kaiser Engineers and Constructors, Inc., which has been engaged by the Ghanaian Government to submit detailed designs of the full installation by September 1, 1960.

The Kaiser organization has also been contracted to perform preliminary work at the dam site, at Akosombo on the Volta River. The complete project, including the aluminum smelting plant, is based on the Kaiser Reassessment Report, published in February 1959, which revised a more ambitious and costlier project proposed in the Volta River Preparatory Commission Report of 1956. The Kaiser Reassessment Report estimated the total cost of the overall project at $600 million.

Progress in the past was delayed, in large part, by the Ghanaian Government's failure to interest Western aluminum producers to invest in new facilities under conditions in which the cost of power was an unknown. Since the financial arrangements - loan or grant - for the hydroelectric facilities were not known, it was impossible for a power rate to be established. In the face of this impasse, Prime Minister Nkrumah announced that his Government would move forward with the hydroelectric power facilities regardless of the absence of arrangements to build the aluminum smelter. A British firm, Cooper Bros., was engaged to review the situation for the purpose of recommending appropriate electric power rates.

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In the spring of 1959 the Ghanaian Government requested U. S. Government assistance in (a) organizing the financing for the construction of the dam and installation of hydroelectric power facilities, and (b) contacting aluminum producing companies with the aim of forming a joint company or a consortium for the construction of an aluminum smelter in Ghana.

In September 1959, the Ghanaian Government invited the Kaiser Aluminum and Chemical Corporation to take the lead in organizing a consortium for the purpose described above. In December 1959, an Agreement in Principle was signed between a consortium 1/ known as the Volta Aluminum Company (VALCO) and the Ghanaian Government. Kaiser will hold a one-third interest, and the other companies, combined, a total of 25 - 45%. Each company has agreed to contribute $50,000 - $75,000 to meet costs of further investigation of the project, to make detailed cost estimates and financial forecasts. The consortium hopes to arrange financing for the aluminum smelter by September 1, 1960. Negotiations with the GOG on power rates are proceeding satisfactorily. Plant location is proposed at Tema, a port about 18 miles east of Accra.

PROPOSED FINANCING:

The IBRD estimates the total cost of hydroelectric power facilities, including construction of the dam, at $163.2 million, of which $112 million will be required for foreign exchange costs. (Auxiliary costs for housing, port development and land acquisition, for which financial arrangements are not discussed herein, are estimated at an additional $32 million). IBRD representatives have stated that although the capacity of the proposed power plant would be considerably in excess of needs for the aluminum smelter, the demand forecast indicates that excess generating capacity will be absorbed within 10 years.

Of the $112 million in external financing required, the IBRD has indicated willingness to supply $40 - $45 million, the GOG has been informed that the U. S. Government would be a source for $30 million, and the GOG has informed the U. S. Government that the UK Government is willing to lend $14 million. This UK loan would be untied if the U. S. loans are also untied. The balance of the financing would be supplied by the GOG.

The IBRD has indicated the following conditions of its loan: (a) that the GOG limit economic development; defense expenditures and foreign borrowing; (b) that construction of the proposed 700-mile transmission network, for transmission of power other than to Accra, Tema and to the smelter, should be delayed until the demand justifies the cost; (c) that a Volta River Authority be established, and (d)

1/ Kaiser Aluminum and Chemical Corporation, Reynolds Metals Company, Olin Mathison Company, Alcan, Alcoa, and British Aluminum Company.

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that the Electricity Commission be reorganized.

With respect to the proposed DLF/ExIm Bank loans, the GOG has requested $30 million at 3-1/2% interest, repayment in 30 years, with the loan not tied to U. S. procurement.

SECTION 202(c) OF THE MUTUAL SECURITY ACT:

Section 202(c) of the Mutual Security Act, which was adopted this year, governs the making of such an allocation and reads as follows:

> "(c) The Fund shall not allocate, reserve, earmark, commit or otherwise set aside, funds aggregating in excess of $50,000 for use in any country under this title unless (1) an application for such funds has been received for use in such country together with sufficient information and assurances to indicate reasonably that the funds will be used in an economically and technically sound manner, or (2) the President determines with respect to each such allocation, reservation, earmarking, commitment, or set-aside that it is in the national interest to use such funds pursuant to multilateral plans."

Funds allocated for the Volta River hydroelectric project will be used "pursuant to multilateral plans", since the project is being financed jointly by the U. S. Government, the IBRD, an international agency, and possibly by the UK Government. The determination required by Clause (2) of Section 202(c) has been made.

RECOMMENDATION:

The Managing Director recommends that the Board of Directors indicate its willingness to participate in financing the costs of the Volta River hydroelectric project, in conjunction with the IBRD and the ExIm Bank, by allocating $20 million of DLF funds for the purpose of a dollar loan up to $20 million, repayable in dollars at 3-1/2% interest, to meet a portion of the ~~foreign exchange~~ costs of the project; authorization of the loan subject to:

1. The receipt by the DLF of a detailed application satisfactory to it and containing the information required by Section 517 of the Mutual Security Act;

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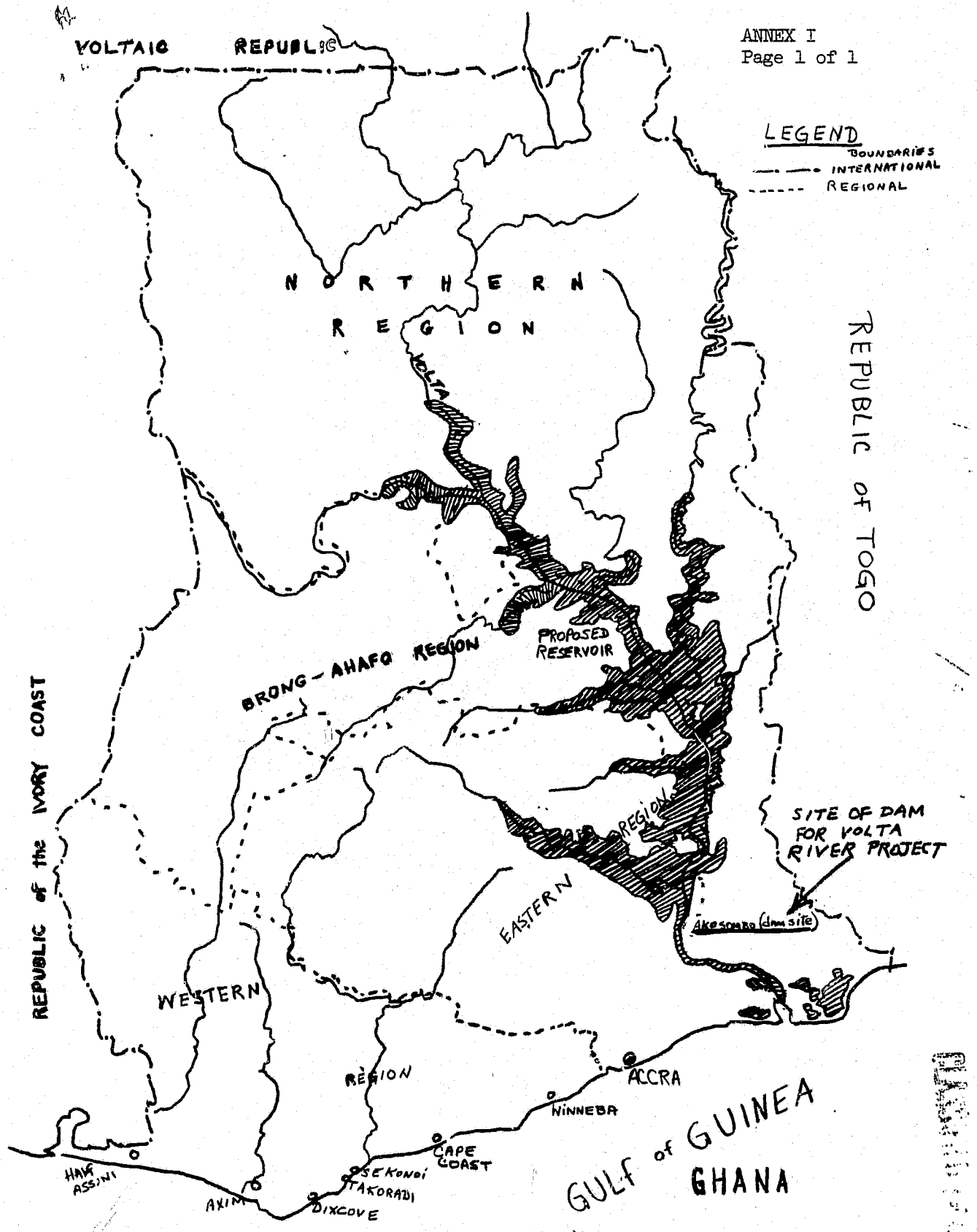

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TAB B

Section 202(c) of the Mutual Security Act reads as follows:

"(c) The Fund shall not allocate, reserve, earmark, commit, or otherwise set aside, funds aggregating in excess of $50,000 for use in any country under this title unless (1) an application for such funds has been received for use in such country together with sufficient information and assurances to indicate reasonably that the funds will be used in an economically and technically sound manner, or (2) the President determines with respect to each such allocation, reservation, earmarking, commitment, or set-aside that it is in the national interest to use such funds pursuant to multilateral plans."

The report of the House Committee on Foreign Affairs on the Mutual Security Act of 1960 (HR No. 1464) contains (pp. 25-26) the following comments on section 202(c):

"...It is recognized, particularly in the case of programs or projects involving the participation of two or more countries or joint planning with an international organization, that it is essential for the United States to be able to commit itself to make available a specified sum prior to receiving applications meeting the requirements mentioned."

The Under Secretary is authorized to make a determination pursuant to clause (2) of section 202(c) under the provisions of Executive Orders Nos. 10575 and 10610 and Department Delegation of Authority No. 85.

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